# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/825,697 | 04/15/2004 | Stephen William Byng | 7051P002 | 9200 |

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| EXAMINER |
|---|
| CABUCOS, MARIE G |

| ART UNIT | PAPER NUMBER |
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| 2163 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

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| Office Action Summary | Application No. | Applicant(s) |
| --- | --- | --- |
| | 10/825,697 | BYNG, STEPHEN WILLIAM |
| | Examiner | Art Unit |
| | Marie Antoinette Cabucos | 2163 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☒ Responsive to communication(s) filed on <u>4/15/2004 & amendment filed 5/17/2007</u>.

2a)☒ This action is **FINAL**.      2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) <u>1-3,5-8,18,19 and 21-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,5-8,18,19 and 21-30</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>15 April 2007 and 17 May 2007</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

### *Priority*

1.      Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

### *Drawings*

2.      The drawings were received on 5/17/2007.  These drawings are acceptable.

### *Claim Rejections - 35 USC § 102*

3.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.      Claims 1-3, 5-8, 18, 19, 21 and 22 are rejected under 35 U.S.C. 102(e) as being

anticipated by LeMay et al (US Publication no. 2003/0078103).

Regarding claim 1, Lemay discloses in figures 1, 2A, 2B, 10, 11, 14 and 15 a

method of providing access to data in a data system, said method comprising the steps

of identifying and classifying data in the data system as non-critical data (game events)

or critical data (critical game event; permanent); and classifying critical data as

authoritative data (temporary) in situations where the data requires immediate access in

order to provide a seamless interface to a user, the authoritative data being the most

recent value of a data entry (paragraph 0071-0073 and 0085); storing classified data in

a particular data storage module (NV-RAM, SDRAM) so as to be accessible by one or

more devices in the data system; adjusting the classification of the data in accordance

with at least one of a change in a current environment of the data storage module and a

move of the data from the data storage module to another environment (paragraph

0087-0093); wherein at least one of the data storage module in which the classified data

is stored and the operation of the data system when handling the classified data is

dependent on the classification of the data (paragraph 0072-0073; temporary space

used to as intermediate step in determining critical data).

5.      Regarding claims 2-4, LeMay discloses in figures 1, 2A, 2B, 10, 11, 14 and 15 a

method of providing access to data in a data system, said method further comprising

the steps of storing the authoritative data in an authoritative data storage module (229)

and subsequently displaying the authoritative data to the user (54); and storing the

classification of the data in a file means and thereafter storing the data in a designated

location in accordance with the classification of the data (81, 82, 226).

6.      Regarding claim 5, LeMay discloses in figures 1, 2A, 2B, 10, 11, 14 and 15 a

method of writing data to a data storage module in an N-tier architecture, said method

comprising the steps of classifying a newly created data entity (game events) as critical

data or non-critical data; obtaining a current value of the data entity (paragraph 0121);

determining the location within the N-tier architecture at which the current value is to be

stored in the data storage module on the basis of the classifying step; and storing the

current value in the determined location (paragraph 0087); storing classified data in a

particular data storage module (NV-RAM, SDRAM) so as to be accessible by one or

more devices in the data system; and adjusting the classification of the data in

accordance with at least one of a change in a current environment of the data storage

module and a move of the data from the data storage module to another environment

(paragraph 0087-0093).

7.      Regarding claim 6, LeMay discloses in figures 1, 2A, 2B, 10, 11, 14 and 15 a

method of writing data to a data storage module according to claim 5 further comprising

the step of storing the current value of the data entity in volatile storage of the data

storage module where the current value of the data entity is not critical data (paragraph

0123, sequence events and paragraph 0224, VRAM).

8.      Regarding claims 7 and 8, LeMay discloses in figures 1, 2A, 2B, 10, 11, 14 and

15 a method of writing data to a data storage module according to claim 5 further

comprising the step of storing the current value of the data entity in an authoritative

source of the data storage module where the current value of the data entity is

authoritative data; and storing the current value of the data entity in non-volatile storage

of the data storage module where the current value of the data entity is not authoritative

data (paragraph 0121, critical game event).

9.      Regarding claims 18 and 19, LeMay discloses in figures 1, 2A, 2B, 10, 11, 14

and 15 a computer program means for directing a processing means (92, 224) to

execute a procedure according to any of the method steps of claims 1 and 5.

**10.**    Regarding claim 21, LeMay discloses in figures 1, 2A, 2B, 10, 11, 14 and 15 a method of writing data to a data storage module in a N-tier architecture, the method comprising classifying a newly created data entity as critical data; identifying the location (NV-RAM, SDRAM) in the N-tier architecture where a said newly created data entity that has been classified as critical is to be stored; classifying critical data (permanent) as authoritative data (temporary) in situations where the data requires immediate access in order to provide a seamless interface to a user, the authoritative data being the most recent value of a data entry, wherein the classification of critical data as authoritative data is dependent on the identified location; obtaining a current value of the data entity; and storing the current value in the identified location (paragraph 0071-0073 and 0085); wherein at least one of the particular data storage module at the identified location in which the critical data is stored and the operation of the data system when handling critical data is dependent on whether that data is classified as authoritative data (paragraph 0072-0073; temporary space used to as intermediate step in determining critical data).

**11.**    Regarding claim 22, LeMay discloses in figures 1, 2A, 2B, 10, 11, 14 and 15 a method of writing data to a data storage module in a N-tier architecture, the method of claim 21, further comprising determining when critical data is communicated from one location to another location in the N-tier architecture and in response reclassifying the data (paragraph 0087-0093).

**12.**     Claims 23-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Paul J.

Reilly (US Publication no. 2006/0014523).

Regarding claim 23, Reilly discloses in figures 1-3 a method of managing data

storage within a data system having an N- tier architecture, the method comprising

maintaining in memory a definition of a plurality of classifications of data, in a

classification process performed in the data system comparing data in the data system

to said definition to determine the classification of the data, and storing data in a

particular tier within the data system dependent on the determined classification

(paragraph 0013).

**13.**     Regarding claims 24 and 25, Reilly discloses in figures 1-3 a method of

managing data storage within a data system having an N- tier architecture, the method

of claim 23, comprising classifying the data upon initialization of the N-tier application

(paragraph 0004-0006); and comprising classifying the data immediately preceding

storage of the data (paragraphs 0035-0041).

**14.**     Regarding claims 26 and 27, Reilly discloses in figures 1-3 a method of

managing data storage within a data system having an N- tier architecture, the method

of claim 23, wherein the plurality of classifications include critical data (paragraph 0018-

0024), which is data vital to the operation of the N-tier application, and noncritical data

(0025); and wherein the plurality of classifications include authoritative data, which is

critical data requiring a short access time (paragraph 0030-0031).

**15.**     Regarding claim 28, Reilly discloses in figures 1-3 a of storing data in a data

system comprising storing information relating to a plurality of types of data in the data

system, including at least information on the manner of creation of the data, frequency

of creation of the data, identity of the component that creates the data and accessibility

requirements for the data, accessing the stored information in an automatic data

classification process run in the data system, and storing data classified in the

automatic data classification process in a particular data storage module in the data

system dependent on the classification of the data (paragraph 0004-006 and 0013-

0028).

16.     Regarding claims 29 and 30, Reilly discloses in figures 1-3 a of storing data in a

data system of claim 28, wherein the data system is a gaming system comprising an N-

tier architecture and wherein the process of storing data classified in the automatic

classification process comprises storing different classes of data in different data

storage modules located in different tiers in the N-tier architecture (paragraph 0028);

and wherein the classifications include a classification of data that is vital to the

continued operation of the gaming system and which requires relatively quick access for

display on a display in the gaming system and wherein the method comprises storing

data within this classification before displaying images representing the data on the

display (paragraphs 0030-0031 and 0057-0058).


17.     Claims 23-30 are rejected under 35 U.S.C. 102(e) as being anticipated by

Dwayne R. Nelson (US Publication no. 2003/0073497).

        Regarding claim 23, Nelson discloses in figure 1 a method of managing data

storage within a data system having an N- tier architecture, the method comprising

maintaining in memory a definition of a plurality of classifications of data, in a

classification process performed in the data system comparing data in the data system

to said definition to determine the classification of the data, and storing data in a

particular tier within the data system dependent on the determined classification

(paragraph 0014-0018).

18.     Regarding claims 24 and 25, Nelson discloses in figure 1 a method of managing

data storage within a data system having an N- tier architecture, the method of claim 23,

comprising classifying the data upon initialization of the N-tier application (paragraph

0004-0005); and comprising classifying the data immediately preceding storage of the

data (paragraphs 0034, 0052-0053).

19.     Regarding claims 26 and 27, Nelson discloses in figure 1 a method of managing

data storage within a data system having an N- tier architecture, the method of claim 23,

wherein the plurality of classifications include critical data (permanent), which is data

vital to the operation of the N-tier application, and noncritical data (downloaded games);

and wherein the plurality of classifications include authoritative data (temporary), which

is critical data requiring a short access time (paragraph 0034, 0052-0053).

20.     Regarding claim 28, Nelson discloses in figures 2-8 a of storing data in a data

system comprising storing information relating to a plurality of types of data in the data

system, including at least information on the manner of creation of the data, frequency

of creation of the data, identity of the component that creates the data and accessibility

requirements for the data, accessing the stored information in an automatic data

classification process run in the data system, and storing data classified in the

automatic data classification process in a particular data storage module in the data

system dependent on the classification of the data (paragraph 0048-0050 and 0057-

0062).

21.     Regarding claims 29 and 30, Nelson discloses in figures 2-8 a of storing data in a

data system of claim 28, wherein the data system is a gaming system comprising an N-

tier architecture and wherein the process of storing data classified in the automatic

classification process comprises storing different classes of data in different data

storage modules located in different tiers in the N-tier architecture (paragraph 0031-

0034); and wherein the classifications include a classification of data that is vital to the

continued operation of the gaming system and which requires relatively quick access for

display on a display in the gaming system and wherein the method comprises storing

data within this classification before displaying images representing the data on the

display (paragraph 0034, 0052-0053).


### *Response to Arguments*

22.     Applicant's arguments filed 5/17/2007 have been fully considered but they are

not persuasive. Applicant argues that "LeMay et al does not disclose the adjustment of

the classification of data in accordance with a change in a current environment of a data

storage module or a move of the data from a data storage module to another

environment"; "does not disclose varying the classification of data dependent on the

communication of the data between different environments"; and that "LeMay contains

no disclosure of anything to suggest that the classification of data may change

depending on the location of the data in the gaming system".

23.    Examiner respectfully disagrees for Lemay discloses in figures 1, 2A, 2B, 10, 11,

14 and 15 a method of providing access to data in a data system, said method

comprising the steps of identifying and classifying data in the data system as non-critical

data (game events) or critical data (critical game event; permanent); and classifying

critical data as authoritative data (temporary) in situations where the data requires

immediate access in order to provide a seamless interface to a user, the authoritative

data being the most recent value of a data entry (paragraph 0071-0073 and 0085);

storing classified data in a particular data storage module (NV-RAM, SDRAM) so as to

be accessible by one or more devices in the data system; adjusting the classification of

the data in accordance with at least one of a change in a current environment of the

data storage module and a move of the data from the data storage module to another

environment (paragraph 0087-0093); wherein at least one of the data storage module in

which the classified data is stored and the operation of the data system when handling

the classified data is dependent on the classification of the data (paragraph 0072-0073;

temporary space used to as intermediate step in determining critical data).

### Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Prior art of record to Takayuki Asai (US Patent no. 6,876,661) discloses

information processing terminal and content data acquiring system using the same.

Prior art of record to Breckner et al (US Patent no. 6,902,481) discloses a

decoupling of the graphical presentation of a game from the presentation logic.

### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.  Accordingly, **THIS ACTION IS MADE FINAL.**  See MPEP

§ 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.  In no event, however, will the statutory period for reply expire later

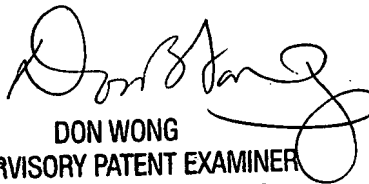than SIX MONTHS from the date of this final action.

## *Inquiry*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marie Antoinette Cabucos whose telephone number is 571-272-8582. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marie Antoinette Cabucos
Examiner
Art Unit 2163

DON WONG
SUPERVISORY PATENT EXAMINER
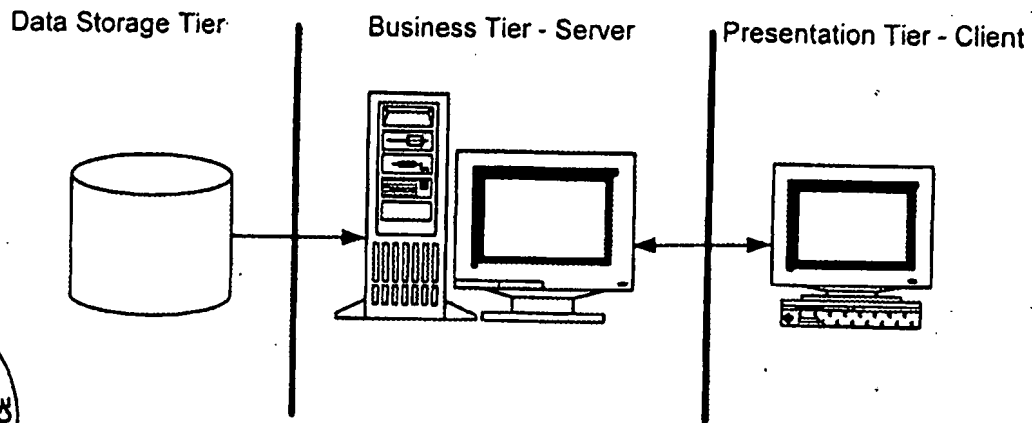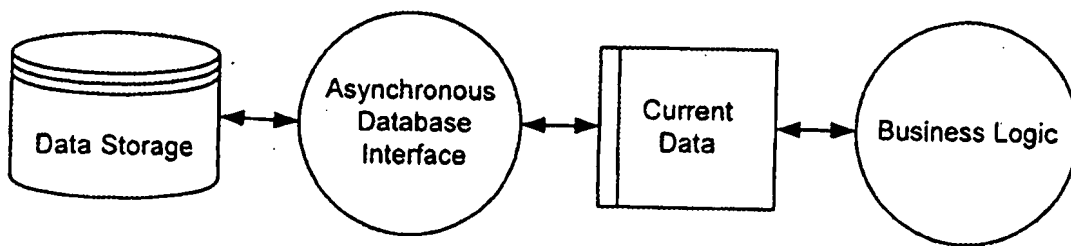TECHNOLOGY CENTER 2100

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Data Storage Tier      Business Tier - Server      Presentation Tier - Client



**Fig. 1**

(PRIOR ART)



Data Storage   Asynchronous Database Interface   Current Data   Business Logic

**Fig. 2**